

**METHOD AND SYSTEM FOR INCREMENTALLY
UPDATING A CHECKSUM IN A NETWORK DATA PACKET**

ABSTRACT OF THE DISCLOSURE

An improved technique for incrementally updating a checksum in a network data packet is disclosed. A partial one's complement sum is first computed by subtracting the checksum value of certain packet header fields from the original data packet checksum. One or more of the packet header fields are then modified. An incrementally updated checksum is then computed by adding a checksum value of the modified packet header fields to the previously calculated partial one's complement sum. The updated checksum then replaces the original data packet checksum in the network data packet.